

WHAT IS CLAIMED IS:

1. A method comprising:
  - 5 combining a sample suspected of containing rendered animal byproduct with a ligand having binding affinity for an analyte for a time and under conditions effective to cause at least some analyte, if present, to bind with at least some ligand to form a complex,
  - determining existence or nonexistence of the complex,
  - 10 correlating the existence or nonexistence of the complex to determine presence or absence of analyte in the sample;wherein the analyte is a component of rendered animal byproduct.
2. The method of Claim 1, wherein:
  - 15 a detectable label is attached to the ligand,
  - combining the sample with the ligand further comprises combining the sample and ligand with a second ligand that is bound to at least one location on a solid phase for a time and under conditions effective to cause at least some analyte, if present, to bind with at least some ligand and at least some second ligand such that at
  - 20 least some ligand becomes immobilized in the location,
  - the method further comprises separating unbound ligand from bound ligand after the combining step and before the determining step,
  - determining the existence or nonexistence of the complex comprises determining whether detectable label is present in the location.
- 25 3. The method of Claim 1, wherein:
  - a detectable label is attached to the ligand,
  - combining the sample with the ligand further comprises combining the sample and ligand with an analyte analog that is bound to at least one location on a
  - 30 solid phase, wherein the ligand has a binding affinity for the analyte analog,
  - the method further comprises separating unbound ligand from bound ligand after the combining step and before the determining step,

determining the existence or nonexistence of the complex comprises determining the amount of labeled ligand present in the location.

4. The method of Claim 1, wherein:

5 combining the sample with the ligand further comprises combining the sample and ligand with an analyte analog having a detectable label attached thereto and a binding affinity for the analyte analog,  
the ligand is bound to at least one location on a solid phase,  
the method further comprises separating unbound analyte analog from bound  
10 analyte analog after the combining step and before the determining step,  
determining the existence or nonexistence of the complex comprises determining the amount of labeled analyte analog present in the location.

5. The method of Claim 1, wherein:

15 determining existence or nonexistence of the complex further comprises determining the amount of the complex, and  
correlating the existence or nonexistence of the complex further comprises correlating the amount of complex to determine the amount of analyte present in the sample.

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6. The method of Claims 1, wherein the analyte is a component of meat and bone meal.

7. The method of Claim 1, wherein the analyte is a component of  
25 rendered connective tissue or bone.

8. The method of Claim 1, wherein the ligand comprises an antibody.

9. The method of Claim 1, wherein the sample is animal feed or a  
30 component thereof.

10. The method of Claim 1, wherein the analyte is a component of the extracellular matrix of bone or cartilage.

11. The method of Claim 1, wherein the analyte is chondroitin sulfate, aggrecan, osteocalcin, hyaluronic acid, or Type II collagen.

5           12. The method of Claim 1, wherein the method detects rendered animal byproduct in the sample in amounts of about 0.1% by weight or more.

13. The method of Claim 1, wherein the assay further comprises:

10           combining the sample with at least one additional ligand having binding affinity for a component of rendered animal byproduct of one or more known taxonomic groups, but having measurably lower binding affinity for rendered animal byproduct from one or more different taxonomic groups, for a time and under conditions effective to cause the  
15           second ligand to bind with the analyte, if present, to form a complex, determining existence or nonexistence of the second complex, and correlating the existence or nonexistence of the second complex to determine presence or absence of rendered animal byproduct of a known taxonomic group or combination of taxonomic groups.

20           14. A method of making an antibody that is immunoreactive with a rendered animal byproduct or a component thereof, comprising administering to an animal a composition comprising an immunogen in such an amount and under such conditions as to cause an immune response in the animal, wherein the immunogen comprises a  
25           molecule or substance having one or more structural components with the same immunoreactivity as a component of the rendered animal byproduct.

15           15. A kit for performing the method of claim 1, comprising materials useful in performing the method and instructions for correlating results of the  
30           method to determine the presence or absence of rendered animal byproduct, the amount of rendered animal byproduct, or both.

16. An antibody selected from the antibodies designated 244C1 and 244C2.